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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,790	05/18/2006	Yoshiyuki Takase	Q94561	7397
23373 7590 06/23/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
BUIE, NICOLE M				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
06/23/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/579,790

**Applicant(s)**

TAKASE ET AL.

**Examiner**

NICOLE M. BUJE

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 7-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-893)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/09/2009 has been entered.

### ***Response to Amendment***

The amendment filed 06/09/2009 has been entered. Claims 1-5 and 7-10 remain pending in the application. The previous objection to the abstract is withdrawn in light of Applicants' amendment.

### ***Response to Arguments***

Applicant's arguments filed 06/09/2009 with respect to the rejection(s) of claim(s) 7-10 under 102(b) as being anticipated by Schreyer (US 3,085,083) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art. The following comments apply:

A) Schreyer does not teach or suggest a fluoro-polymerized material having a volatile matter index of not higher than 15 (Applicants' response on page 7). Therefore, Schreyer has been withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 7-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Carlson (US RE 32,199).

**Regarding claim 7**, Carlson discloses copolymers of tetrafluoroethylene and fluoroalkyl perfluorovinyl ethers, which include fluoroalkyl perfluorovinyl ethers having the general formula  $X: CF_2(CF_2)_nOCF=CF_2$  where  $X=F$  or  $H$  and  $n = 1-7$  (Abstract, C4/L9-30). Carlson discloses that the end groups of the copolymers are formed by the chain transfer agent are  $-CF_2H$  (C2/L67-C3/L18). Since salts are not used in the polymerization process to produce the copolymer of Carlson, the copolymer of Carlson does not contain any metal residue containing an alkali metal element and/or alkaline earth metal element (C3/L35-55). Carlson discloses that the volatiles index be less than 25 which meets the claimed range (C5/L43-45).

**Regarding the method limitations recited in claim(s) 8**, the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in *Thorpe*, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. *In re Pilkington*, 411 F. 2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process

claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process). See MPEP § 2113.

**Regarding claims 9 and 10**, a fluorocopolymer derived from tetrafluoroethylene and hexafluoropropylene is optional since other fluoropolymers may be selected in instant claim 7 in which claim 9 depends.

**Claims 7-10** are rejected under 35 U.S.C. 102(b) as being unpatentable over Buckmaster (US 5,045,605).

**Regarding claim 7 and 9**, Buckmaster discloses melt-processible fluorocopolymers, such as tetrafluoroethylene/hexafluoropropylene copolymers or tetrafluoroethylene/perfluoropropyl vinyl ether with stable  $-\text{CF}_2\text{H}$  groups (Abstract, Examples 4 and 5). Ammonium persulfate is used as the initiator in Example 1. The introduction of ammonium perfluorocaprylate may be used as the dispersing agent if the polymerization medium is water (Example 1). Alkali or alkaline earth metals are not present in the polymerization process. In Table 5 and 6, when dimethylamine is used as the treating agent there are less than 5 or no unstable end groups present.

The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients, number of unstable end groups, and absence of alkali or alkaline earth metals (See Applicants' response filed 06/09/2009 on page 7). Therefore, the claimed effects and physical properties, i.e. volatile matter index would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would

need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

**Regarding claim 8**, Buckmaster discloses a fluoropolymer obtained by emulsion polymerization (C4/L22-30).

**Regarding claim 10**, in Example 1, Buckmaster discloses a tetrafluoroethylene/hexafluoropropylene copolymer with 12.6 weight percent of HFP and therefore 87.4 weight percent of TFE which meets the claimed ranges of the monomeric units.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

/N. M. B./  
Examiner, Art Unit 1796  
6/16/2009